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ABSTRACT

Arguing that technological change often affects the organizational structure of library workplaces, this paper presents two alternative approaches to the implementation of change in organizational structures, provides several examples of each approach, and suggests related reading materials. It is noted that the configurational approach concentrates on the capabilities for organizational change provided by automation, while the coactivational approach focuses more on the human side of the organization, taking into account the need for communication and interaction among employees. Library managers are advised to consider both the configurational and coactivational perspectives when planning for library automation. Two caveats are given: (1) if used by itself, the configurational approach can destroy patterns of coactivation; and (2) if the coactivational approach is implemented alone, too much attention may be focused on current patterns of interaction between employees and new patterns of interaction may not be predicted that might produce motivation and productivity in a new organizational structure. It is concluded that managers may more successfully implement change in libraries if they combine a knowledge of technical capabilities with a concern for the constraints posed by patterns of human interaction. (MAB)

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Technological Capabilities and Human Constraints: Automation and Organizational Change in Academic Libraries

Bryce Allen

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When technology changes, the library changes with it. I would like to present two alternative ways of thinking about changes in organizational structure that can result from technological change in libraries.

The first way of thinking about organizational change can be illustrated by a few examples. Suppose automation results in a dramatic change in the work being done: for example if filing and revising in the card catalog is no longer being done. It may be necessary to eliminate one whole unit from the organizational chart of a department. Another example: functions that at one time were in one location because they shared paper files can be distributed throughout the library. This is one of the origins of the idea of holistic librarianship: the idea that catalogers no longer need to be in the vicinity of shelflists and authority files, but can be located in the various service units of the library where their expertise can be very useful.

In one academic library, automation has meant that MARC records are obtained and used during the acquisitions process. As a result, acquisitions and copy cataloging functions have been merged into a unit called "bibliographic services".

These three examples are typical of a way of thinking about the work place. Some might call it a typically "managerial" way of thinking about the library. It involves seeing the work place as it appears on an organizational chart, and looking at changes as simply moving boxes and re-drawing arrows on that chart. Automation makes it possible for us to

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restructure the workplace: let's do it. As is usually the case, there is a big word for this approach to organizational change: configurational. What we are concerned about is how the work place is configured, how the parts fit together. This is the traditional perspective of management, and it is reflected in standard texts such as Lowell Martin's Organizational Structure of Libraries[1]. But we should also note that this approach concentrates on the capabilities for organizational change provided by automation rather than on the human side of the organization.

The second way of thinking about organizational change can also be illustrated by examples. In one company that assembles electronic components, it was decided to make the work place more comfortable by installing a new air conditioner. As soon as this equipment was installed, managers were surprised that there was a dramatic drop in productivity. When they investigated, they discovered that the noise made by the air conditioner was so loud that workers sitting around the work tables could no longer talk to each other easily. The social interaction that had been an important part of their jobs was lost, and their motivation to work decreased. In a library environment, a parallel situation might occur when we isolate input clerks in separate workstations. Again, interaction between workers can be lost, and morale and productivity can drop.

The final illustration is based on speculation about the implementation of holistic librarianship at the University of Illinois. One result was that some measures of cataloging productivity decreased. There may be a number of reasons for this, but it is possible that one reason was that catalogers were no longer able to talk to each other about their work. Being separated from each other by their new locations in the service units meant the loss of an important kind of interaction.

This way of looking at organizational structure emphasizes patterns of communication rather than boxes and arrows on an organizational chart. And it also has a big word

attached to it: coactivational. The coactivational viewpoint is that organizational structure is determined by how people interact with each other.

Anyone who wants a theoretical overview of these two points of view on organizational structure can read an article in the Academy of Management Review[2], in which Gregory Dow analyzes them in detail. From the library perspective, Ken Jones provides both points of view in his book Conflict and Change in Library Organizations[3].

What I would like to suggest is that in planning for automation in libraries, library managers would be best advised to take into account both the configurational and coactivational perspectives. The configurational approach, if used by itself, can produce problems because patterns of coactivation are destroyed. On the other hand, the coactivational approach, if used by itself, may focus too much attention on current patterns of interaction between employees, and so may not be able to predict new patterns of interaction that might produce motivation and productivity in a new organizational structure.

Dealing with the organizational change that inevitably happens as the result of technological change is one of the most difficult managerial tasks associated with rapidly changing work places like libraries. This managerial task requires attention not only to the big picture, to the ways in which the work place can be configured, but also to the patterns of communication and interaction between library workers, and between library workers and users. By combining a knowledge of technical capabilities with a concern for the constraints posed by patterns of human interaction we may be more successful in managing change in libraries.

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[1]Martin, Lowell A. Organizational structure of libraries. Metuchen, NJ: Scarecrow Press, 1984.
[2]Dow, Gregory K. "Configurational and coactivational views of organizational structure." Academy of Management Review, 13(1): 53-64, 1988.
[3]Jones, Ken. Conflict and change in library organizations: People, power and service. London: Clive Bingley, 1984.